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Aside from hyper inflation, nothing damages rural financial markets (RFMs) more than loan defaults. While a few borrowers fail to repay in all types of lending, defaults have been particularly troublesome in agricultural credit programs in low income countries (Donald). In a few extreme cases almost none of the loans are repayed (e.g. Graham and Pollard), while in other cases recovery is satisfactory in the first phase of a program and then deteriorates (Esguerra). In still other situations chronic loan defaults have haunted credit programs for so long that policy makers come to expect a quarter to half of the loans made will not be repayed (e.g., in Bangladesh, India, Jordan, Mexico, Nigeria, Saudi Arabia, Sudan, and Upper Volta).

While these problems have attracted the attention of policy makers and researchers, "default disease" is still not well understood. In the discussion that follows, I attempt to clear away some confusion about loan defaults and their measurement and go on to suggest general strategies that might allow more systematic diagnoses and treatment of these problems. I begin the discussion by challenging the argument that loan defaults are not a serious problem. I next turn to a discussion of the damage inflicted on rural financial markets by extensive loan default.

This is followed by a discussion of measurement problem and a categorization of the causes of loan default. I conclude with some suggestions on ways to lessen these problems.

Defaults and Development

Some governments have realized unanticipated increases in income from oil, minerals, or crop exports and have used alleged credit programs as ways of distributing some of these windfall gains in rural areas, while other countries have simply tried to redistribute income through concessionary credit programs. Still other governments have used permissive and targeted loans to promote activities such as land reform, regional development, cooperatives, the use of new inputs, and crop production. Examples of these activities can be found in almost every low income country.

A number of government and donor officials say they are not concerned about farmers' defaults in these programs because the loans are just money, pieces of paper, entries in account books, and only amount to transfer payments from lenders to borrowers. They go on to argue that default forbearance is a painless way of distributing income transfers to farmers, most of whom are assumed to be poor. It is further argued that granting loans to farmers--whether they are repaid or not--encourages borrowers to adopt new technologies and increase agricultural production, thus benefiting society.

These arguments and practices make me uncomfortable; I argue in the following pages that the social benefits of these practices are negligible and the costs are far greater than is generally perceived. I have three major reservations about these arguments.

Regressive Allocation of Subsidy

My first criticism is that these practices allocate benefits regressively. Those who default on the largest loans receive the largest subsidies; those defaulting on small loans receive small subsidies; and those who receive no loan or who repay their loans receive no default subsidy. Since access to loans and size-of-loan are highly correlated with the wealth of borrowers, and since it is impossible to confine defaults to just small loans, asset transfers through defaults always have a regressive impact on income and asset distributions. The relatively well-to-do, the powerful, and the dishonest gain more through permissive credit than do the honest, the weak, and the poor.

Impact on Production

My second criticism is that policy makers substantially overestimate the impact of formal loans on production. A large majority of farmers produce, make investments, and adopt new technologies without formal loans. They do this by drawing on savings, using informal loans, selling assets, or reducing consumption. While some farmers direct all additional liquidity received from a formal loan to an activity targeted by government, the more common response is for borrowers to do some

financial substitution. That is, to use only part of the borrowed liquidity for increasing the targeted activity. An example of this is a farmer who has for many years bought with his own money one sack of fertilizer. In response to a new government program he may take a formal loan for two sacks of fertilizer, actually buy two sacks instead of one, substitute part of the borrowed funds for his own money, and use the equivalent of half of his loan for non-fertilizer purchases. In this case the additional fertilizer use caused by the loan is one sack of fertilizer, not two as suggested by the loan agreement.

The nebulous relationship between formal loans and agricultural output is demonstrated by several recent country examples. Between 1979 and 1984 the real value of formal agricultural credit in Brazil was approximately halved by the onslaught of inflation (Araujo and Meyer). At the same time agricultural output continued to increase. During the early 1980s Indonesia had a substantial decline in the real volume of formal loans for rice production, but rice output continued to increase (Timmer). From this, I conclude there is no direct relationship between loans and output. Instead, the relationship is indirect, through the more efficient resource allocation that results from extensive financial intermediation. Credit volume and interest rates are feeble instruments for promoting crop production. The price of the product, new technology that increases crop yields, and prices of critical inputs are much more important in influencing farmer behavior than is credit.

Impact on Intermediary

My third reservation has to do with the hidden costs of default. It is easy to see that washed-out bridges limit the effectiveness of a road system. It is less obvious that defaults destroy equally important "bridges" in financial markets, thus reducing the ability of the financial system to reallocate productive resources from surplus to deficit units within an economy through accepting deposits and making loans. Even worse, defaults destroy the most important product created by financial intermediation: working relationships between borrowers and lenders. Defaults isolate defaulting borrowers from future formal financial services and constrict the reach and coverage of formal financial intermediation. It is this debilitation of the financial system that is the most serious problem created by defaults, a topic to which I now turn.

Viability of Intermediaries

Large numbers of loan defaults undermine the viability and coverage of financial markets. Defaults reduce the volume of funds available for relending, tie up scarce managerial time, and diminish the reputation of the lender. This, in turn, makes it more difficult for intermediaries to obtain funds from government, donors, or depositors. This chokes both lending and deposit-taking by the intermediary, thus lessening the connections of deficit and surplus units through financial

intermediation. Morale problems and management turnover often accompany default disease.

Less obvious effects are equally important. Extensive and chronic defaults raise questions about the permanence of the lender. Defaults can multiply as borrowers who would normally repay fail to do so because they feel the lender will not be able to provide financial services in the future. Borrowers have less incentive to repay loans if they are uncertain about the ability of the lender to provide future financial services (Christen and Vogel). Defaults also foster corruption. It becomes more difficult for loan officers to resist corruption when they see extensive stealing by borrowers. Both lenders and borrowers see a financial system tolerating large amounts of default as a patron passing out grants. Chronic defaults are also a strong indication of a breakdown in loan-making decisions; loans are not being made on the basis of creditworthiness.

Measurement Problems

While the problems of loan default are widespread in many low income countries, information on the magnitude of these problems is usually vague (Gregory and Adams). Some authors have argued, for example, that the default problem is not nearly as serious as is sometimes thought because most delinquent loans are collected a few months after they are due (e.g. Shukla). Other authors have argued that default problems are more serious than is

generally thought because popular loan recovery measures under represent the magnitude of the problem (e.g. Von Pischke).

The most obvious explanation for this confusion is that loan recovery is tricky to measure, even when all of the data necessary to do so are available, because of the multiple dimensions in a loan portfolio (Bolnick). Reasons for this are: (1) Some loan data are flow figures while others are stock figures--value of new loans made during a year, for example, compared to year-end-outstanding balance on loans. (2) Also, loans may be for different lengths of time: e.g., some loans may be for only a cropping season of 4 months, while other loans may not be due for several years. (3) Some lenders' loan portfolios may be growing in size, others may be contracting, while still others may have stable portfolios. (4) Some lenders may regularly refinance loans that are not repayed, while other lenders may classify loans as delinquent the day they come due. (5) Some lenders may have regular procedures for writing off bad debt, while others carry this debt on their books indefinitely. And, (6) some lenders may be doing a careful job of recovery most of the loans made over the past several years, but be forced to carry on their books a number of bad loans made earlier.

Because of the multiple dimensions in a loan portfolio, a single measure of loan recovery performance seldom gives a clear picture of loan recovery problems. Some measures overemphasize the importance of previous loan collection problems, others focus

only on current problems, and few widely used measures adequately reflect the aging of arrears.

Humans who can land spaceships on the moon, correctly predict eclipses of the moon, and build the Suez Canal certainly are capable of designing measures that accurately show loan recovery problems. Why is the measurement of this problems so poorly handled in most countries? Why do concerned people spend so little time and effort monitoring loan recovery? Is the shoddy and confused reporting of loan recovery problems due to lack of incentives for those in responsible positions to spend more time accurately reporting on the severity of default disease?

Reasons for Default

Reasons for loan default can be grouped into three categories: those that are borrower based, those that are lender based, and other factors beyond the control of lenders and borrowers. Traditional concerns with this problem have focused on borrower explanations, while newer views stress flaws in lender procedures and improper uses made of financial markets.

Borrower-based Reasons

Most explanations for low loan recovery rates focus on borrowers. This includes bad weather or other adverse happenings that destroy the borrower's crops so he is unable to repay, the borrower being too poor to repay, a failure in the technology purchased with the loan, and moral defects in the borrower that make him feel he need not repay (Mustafa, Tokroni Sandaratne-

1978, PCAC). The impression that most loan recovery problems are borrower based is reinforced by interviews with delinquent borrowers. It should not be surprising that most borrowers blame their repayment problems on someone else. (Likewise, interviewed lenders are seldom willing to volunteer that any of the loan recovery problem is their fault.) A number of studies have attempted to use statistical techniques to identify farmer characteristics that are closely associated with loan recovery performance, mostly giving inconclusive results; it is understandably difficult to measure borrower honesty and other personal characteristics that lead to loan repayment.

Lender-based Reasons

More recently, studies have concentrated on the shortcomings of lenders and their procedures to explain loan recovery problems. Explanations range from defective loan collateral, improper borrower screening, loans that were dispensed late, lender corruption, extension agents making loan decisions rather than credit officers, and lenders who were so disorganized that they do not properly request loan repayment.

Some of the newest research on default disease focuses on the incentives borrowers have to repay loans and the value to a borrower of maintaining his credit rating with the lender by repaying his loan (Christen and Vogel). This research is suggesting that a significant part of default disease may be caused by low quality and undependable financial services. That is, many of the defaulting borrowers decide the quality of formal

loan services may be so low that a relationship with the lender is not worth maintaining.

When might a credit rating with a lender have a low value for a borrower? Loans that involve lots of paperwork, long delays in getting loans, loans that are approved long after they are applied for, loans that come with inflexible terms, and loans granted without curtesy are not viewed favorably by borrowers. Also, borrowers value most highly loan sources that are dependable, will be around for a long time, those that offer a range of financial services, and those that allow borrowers lines of credit rather than just one formula loan each year.

Other Reasons

It is difficult for borrowers to repay their loans when natural disasters or wars destroy crops. Typhoons, droughts, floods, fires, and pests often do immense damage to crops and livestock. My impression is, however, that these "acts of God" are too often used as excuses for chronic defaults, rather than a valid reason (Stickley and Tapsoba). The fact that informal lenders are able to collect most of their loans, despite these natural disasters--else there would be few informal loans--hints that other factors must also be involved in the decision to repay loans.

Nothing chills borrowers' wills to repay more than for a prominent politician to announce that loans need not be repaid. Political intrusions into the loan-making and loan-recovery process are considerable in countries where governments and

donors provide most of the funds for lending, and where governments are pushing subsidies and targeting through rural financial markets (Ladman and Tinnermeier, Sanderatne-1986). These actions by governments create expectations that loan defaults will be forgiven in the future.

In addition, government policies that cause low economic returns in agriculture further dampen the ability and willingness of borrowers to repay loans. This includes exchange rates that "tax" agricultural exports, food price controls, and too little public investment in agriculture.

The earlier discussed lack of careful measures of loan recovery performance is a symptom of deeper and more serious problems--a result of the way RFMs are being used in many low income countries. If governments are passing subsidies to borrowers through concessionary interest rates, why should objections be raised to enlarging the subsidy through defaults? If farmers are thought to need cheap credit to adopt new technology or to produce a socially desirable product, why not increase the subsidy by overlooking loan defaults.

Defaults are the logical outcome of using financial markets to allocate subsidies and to push development priorities. Given this use of financial markets, it is not in the best interests of donors, policy makers, or employees of financial intermediaries to properly diagnosis and cure default disease. Von Pischke also points out that some loan defaults result from faulty credit project design. Those who set up the project often overestimate

farmers' credit needs, ignore the large amount of income variability that most borrowers experience, and are too optimistic in their projections about the effectiveness of new technologies that accompany loans. These procedures result in some borrowers getting larger loans than they can service with their cash flow and, thus, causing more loan recovery problems (Illy).

Treatments

Because there are many causes of default disease--as it is with cancer--there is no single cure. Likewise, because the mix of reasons for default varies across countries, its treatment must be time and place specific. Despite these limitation, I believe there are two interrelated changes that could be made in current procedures that would substantially enhance loan recovery performance in most countries. The first is for policy makers to make much less use of financial markets in largely futile attempts to transfer subsidies and for loan targeting purposes. The second is for financial intermediaries to substantially enhance the perceived quality of their financial services.

Change Way Financial Markets are Used

In most countries it will be impossible to substantially improve loan recovery performance as long as policy makers insist on using financial markets to transfer subsidies and to target loans. These policies yield results that are often substantially different from what policy makers intend and seriously damage

the ability of the financial system to intermediate between deficit and surplus units. The flow of concessionary priced funds from governments and donors into rural financial systems also makes it impossible to mobilize sizable amounts of voluntary deposits in rural areas. It is often cheaper for intermediaries to use government money for lending than to mobilize deposits.

This has two adverse effects on loan recovery: first, borrowers and lenders feel less pressure to repay and recover loans when it is mainly government money being lent. Second, borrowers have less incentive to sustain a relationship with an intermediary, by repaying a loan, when lenders do not offer other services such as deposits (Gonzalez Vega and Poyo).

Improve Quality of Financial Services

I have seen a number of credit projects in low income countries where the quality of financial services provided by the intermediary is so poor and undependable that I wonder why most borrowers do not get a "divorce" from the intermediary by defaulting on their loans. I have seen programs where the borrower was forced to fill out 7 sets of long application forms for small- to medium-sized loans; where borrowers did not receive their planting loans until it was nearly time for harvest; where borrowers were forced to wait in line for several days before they could begin to negotiate their loan; where borrowers were forced to visit the intermediary 7-10 times to complete all of the steps necessary to get and repay a small loan; where borrowers of small amounts were forced to take formula loans in

the form of several sacks of fertilizer, when they only needed one sack of fertilizer plus some cash; where borrowers were unable to get small loans from their formal intermediary when family emergencies arose; and, where borrowers incur loan transactions costs that were 3-4 times their interest payments in order to obtain a small loan (Ahmed and Adams).

With these problems it is little wonder that large numbers of farmers decide not to repay formal loans. They conclude that the future value of maintaining a relationship with the lender is worth less than the value of stealing the money borrowed.

Conclusions

While some rural development occurs despite fragmented and inefficient financial system, agriculture cannot realize its full potential without efficient formal financial intermediaries. It will be impossible to create and sustain these institutions if loan recovery rates are not increased substantially in most low income countries.

Widespread loan recovery problems persist because policy makers and donor agencies attempt to accomplish too much through RFMs. Default disease will not be substantially reduced until policy makers realize that RFMs are unable to distribute subsidies equitably and that targeting of loans cause few desired changes in the behavior of farmer-borrowers. Unfortunately, there is relatively little that employees of banks and cooperatives can do to change these policies.

At the same time, I am convinced that intermediaries have latitude to reduce defaults through improving the quality and quantity of their services. This includes cutting down on loan paperwork, speeding up the loan approval process, cutting down on the number of times borrowers must visit the lender, developing more flexible loans, and offering a variety of financial services including deposits. Lessening attempts to control the way borrowers use borrowed funds and emulating more of the services provided by informal lenders should be part of these efforts.

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